ABSTRACT

Iltehabe Unqur Rehm (cervicitis) refers to the inflammation of the cervix which may be acute or chronic causing various complications. Hence it has been decided to conduct a clinical trial for its management with Irsa. This study was a randomized single blind standard controlled trial. It had been undertaken in the department of Ilmul Qabalat wa Amraze Niswan NIUM, Bangalore. All the patients were randomly allocated to test and control group (30 patients in test group & 15 patients in control group. Duration of study is one and a half year. Irsa was given in the form of majoon, 10 gm in two divided doses after menses for 15 days for three cycles and extract of Irsa (10ml) was prepared and used locally in night in the form of humool (pessary) after menses for 15 days for three cycles. In the control group tablet doxycycline 100mg BD was given orally after menses for 7 days for three cycles. Vaginal pessary of a combination of clindamycin, clotrimazole and metronidazole OD was given locally in night after menses for 7 days for three cycles. The results were analyzed statistically using Chi Square and Paired Student’t’ test. Results: Patients treated with the test drug showed a cured and relieved rate of 76.7%, partially cured and relieved rate was 16.7 % and not cured and relieved rate was 6.7% in comparison to control group where cured and relieved rate was 33.3%, partially cured and relieved rate was 26.7% while not cured and relieved rate was 40% which is statistically significant (p<0.01). Student t test (paired) was used to find the homogeneity of parameters. Here P.val > 0.05, it is considered non- significant. Interpretation and Conclusion: The study revealed that the test drug is effective and safe. So, the trial drug can be recommended to manage it.
**KEYWORDS:** Iltehabe Unqur Rehm; Cervicitis; Unani formulation.

**INTRODUCTION**

In Greek Iris has two meanings “the goddess Iris” and “the Rainbow”.\[^1\] The flowers of *Irsa* are yellow, dark yellow, white or sky blue in colour and due to these colour variations the drug was given the name of *Irsa* which means rainbow.\[^2,3,4\]

Commonly known as *Sosan* few says it is “*Jungli sosan asmani*” and few “*Pahadi sosan asmani*”\[^3\]. The pulp of the root is yellowish red or white. It smells like *banafsha* hence named *bekh-ebanafsha*. *Dioscorid*os and *Saad firastus* have described about the drug. The best quality is small broad and thick which is difficult to break. The root is hard and fibrous. The odour is pungent and the taste is slightly bitter and aromatic.\[^3,4,5\]

**Mizaj**

- Hot and Dry (second degree)\[^2\]
- Hot (third degree) and Dry (second degree)\[^6\]

*Iltehabe Ungur Rehm* (cervicitis) is very common affecting more than half of all women at some points during their adult lives. Intercourse at an early age, high risk sexual behavior, multiple sexual partners and a history of sexually transmitted diseases increases the risk of cervicitis in women. Cervicitis may be acute or chronic and each of this acute and chronic cervicitis may be from non infective and infective causes respectively.\[^7,8,9\]

According to unani system of medicine *Iltehabe unqur rehm* may be *Iltehabe har* or *Iltehabe barid*. *Iltehabe har* is due to the domination of hot humour mainly *safra* and *dam* and *Iltehabebarid* is due to the domination of *balgham*. *Iltehabe unqur rehm* can be caused by “*sue mizaj*”. When *sue mizaj* inflicts any organ, it results in certain changes in the functions of that organ and these aberrant changes leads to derangement in the normal functioning of intrinsic faculties which manifests in the emergence of diseases.\[^10,11,12,13\]

In *Iltehabe unqur rehm* the usual manifestations which occur singly or in combination are vaginal discharge, backache, lower abdominal pain, dysuria, dyspareunia etc. On examination, cervix is congested, hypertrophied with velvety appearance. Ectropions are present which may be inflamed and bleeds on touch; nabothian follicles are present on the cervix and tender to touch with exudation of mucopurulent, opaque or clear discharges from the cervical os.\[^14,15\]
MATERIALS AND METHODS

The study was carried out during 2009-2010 in outpatient and inpatient department of *Ilmul Qabalat wa Amrâze Niswan* of National Institute of Unani Medicine, Hospital.

**Method of Collection of Data**

- By history and subjective symptoms.
- By clinical examination (P/S and P/V)
- By laboratory investigations.

**Allocation of Subjects**

45 patients were randomly allocated into 2 groups comprising 30 patients in test (group A) and 15 patients in control (group B).

**Clinical Evaluation of Disease**

The clinical evaluation of disease was done as per designed case record form. Basic information like name, age, sex, address and relevant information regarding occupation, education, socio-economic status, parity and dietary habits were noted.

**Chief Complaints**

All the patients were interrogated about the complaints which brought them to the investigator. Duration of sufferings and development of other symptoms in detail were noted down in chronological order in the case record form.

**History of Present Illness**

A detailed history of development of present clinical symptoms like, vaginal discharge, abnormal vaginal odour, vulval itching, dysuria, dyspareunia, backache, lower abdominal pain, post coital bleeding was enquired. The colour, nature, odour, duration of discharge and its relation to menstruation and coitus was also noted.

**The discharge is classified as mild, moderate and severe**[16]

- **Mild (+):** The normal moistness of vagina without staining or moistening the underclothes.
- **Moderate (++):** The underclothes are undeniably soiled and require changing and washing frequently.
- **Severe (+++):** Requires the wearing of some extra absorbent pads.
Pruritis vulva is classified as\textsuperscript{[17]}
- none (-), mild (+), moderate (++) or severe (+++)

Dysuria is classified as\textsuperscript{[18]}
- none (-), mild (+), moderate (++) or severe (+++)

Dyspareunia, backache, lower abdominal pain, was assessed by Visual Analog Scale as\textsuperscript{[19]}
- none (-), mild (+), moderate (++) or severe (+++)

Next, patients were asked to recall whether they had any history of similar complaints like PID, venereal diseases etc. Menstrual and obstetric history was asked in detail. Patients were also asked about the frequency of sexual intercourse and contraceptives methods they are using or have used.

- Patients were enquired about any drug intake particularly use of OCPs, vaginal preparations and prolonged corticosteroid therapy.
- Examination of the patients included a complete general and gynecological examination. Anemia, icterus and lymphadenopathy were also noted.

Criteria for selection of Cases

The patients were enrolled in the study after having fulfilled the following criteria.

Inclusion Criteria
- Patients in the age group of 18–40 years.
- Patients complaining of vaginal discharge, lower abdominal pain, low back ache, dysuria, and dyspareunia etc.
- On speculum examination any abnormalities in the cervix like hypertrophy, congestion or redness, nabothian cysts, discharge coming through the os etc.
- Patients willing to take part in study.

Exclusion Criteria
- Unmarried, pregnant and lactating women.
- Patient on OCPs or using intrauterine contraceptive devices.
- Patient with any systemic illness like hypertension, diabetes mellitus.
- Sexually transmitted diseases.
Patient with fibroid and malignancy

Following investigations were carried out in each patient.

Specific Investigations

USG-Pelvis: To exclude the pelvic pathology.

Pap smear

It is a medical procedure in which a sample of tissue from cervix is collected and spread on a slide. The cells are examined under a microscope for pathologic changes.

Cervical swab culture

The ectocervix wiped clean with a large swab and samples of endocervical secretions obtained using the microloop technique than smeared directly onto slides for screening of infectious organism. It is repeated after treatment in those patients who have positive before.

Diseases such as VDRL, HIV I & II etc. was excluded by using specific tests on the patients.

Safety Profile

The ESR, LFT and RFT were used as safety parameter once at baseline and once after completion of trial to ensure the safety of the test drug.

Routine Investigations

Hb%, TLC, DLC, ESR, RBS and urine analysis were done once at baseline and repeated after completion of trial.

Criteria for selection of the drug

The test drug Irsa (Iris ensata) was provided by the pharmacy of National Institute of Unani Medicine. Before preparing the formulation, drug was properly identified from Regional Research Institute (Ay.) Bangalore, (RRCBI/Mus. 5-39).

Dosage and Preparation

The best quality of drug was provided by the pharmacy of National Institute of Unani Medicine. Before preparing the formulation, drug was properly identified from Regional Research Institute (Ay.) Bangalore, (RRCBI/Mus. 5-39). Irsa was given in the form of majoone, 10 gm in two divided doses after menses for 15 days for three cycles. Extract of Irsa
(10ml) was prepared and used locally in the form of *humool* OD after menses for 15 days for three cycles.

**Standard Drug**
Tablet Doxycycline 100mg BD was given orally after menses for 7 days for three cycles. Vaginal pessary of clindamycin, clotrimazole and metronidazole OD was given locally after menses for 7 days for three cycles.

**Effectiveness of drug was assessed by following two parameters.**
- Subjective parameters.
- Objective parameters.

**Subjective parameters**
It includes symptoms like vaginal discharge, abnormal vaginal odour, vulval itching, dysuria, dyspareunia, low backache, lower abdominal pain and post coital bleeding.

**Objective parameters**
- Per speculum examination
- Cervical swab culture.

**Criteria for assessment of response of treatment**
On the basis of clinical relief and cervical swab culture findings before and after the treatment. The response was graded as follows:
- Therapeutic outcome.
- Symptomatic relief.

**Therapeutic outcome**
The therapeutic outcome was assessed by objective parameters i.e. Per speculum and cervical swab culture findings after the treatment.

On per speculum examination hypertrophy, congestion or redness, naboths etc should disappear considerably. The culture report which was positive in some patients should become negative such an improvement is regarded as cured. The discharge should also diminish noticeably.
Discharge was graded as\textsuperscript{[20]}
- No Discharge: (-)
- Mild (+): Clear (mucoid).
- Moderate (++): Opaque (cloudy or curdy).
- Severe (+++): Mucopurulent (yellow).

Congestion was graded as\textsuperscript{[21]}
- Absent(-): No congestion
- Mild (+): Congestion either around the os or upper lip or lower lip.
- Moderate (++): Congestion of whole cervix.
- Severe (+++): Congestion of whole cervix which bleeds on touch.

Hypertrophy was graded as\textsuperscript{[22]}
- Not Present: (-)
- Mild (+): Hypertrophy of cervix with patulous os.
- Moderate (++): Hypertrophy of cervix with slightly patulous os.

Response was characterized as\textsuperscript{[23]}
- $\geq 83\%$ relief in all the parameters present at first visit is considered cured.
- $18-82\%$ relief in all the parameters present at first visit is considered partially cured.
- $\leq 17\%$ relief in all the parameters present at first visit is considered not cured.

Symptomatic relief\textsuperscript{[23]}
At last visit, the patients were asked about the progression and regression of symptoms and the response was characterized as:
- $\geq 77.7\%$ relief in all the symptoms present at first visit is considered as relief.
- $18-76\%$ relief in all the symptoms present at first visit is considered as partially relieved.
- $\leq 17\%$ relief in all the symptoms present at first visit is considered not relieved.

Follow up
- The patients were examined every fifteen days for three cycles, during which the clinical evaluation of the disease and related signs and symptoms and information about concomitant medication was also obtained.
Initial symptoms and specific findings were recorded in case proforma at first visit. At every visit, the patients were asked about the progression and regression in their symptoms.

At last visit, clinical examination and specific investigation were performed. Pre and post treatment values of symptoms and signs were analyzed and were subjected to comparison statistically to evaluate the response or effect of the treatment.

After completion of the trial patients was advised for follow up. At the follow up visit, complaint of vaginal discharge and other symptoms were enquired and the speculum examination was repeated.

**Safety assessment**

The assessment of the safety of the treatment was done on the following parameters:

a) Clinical assessment at every visit.

b) Biochemical assessment: ESR, SGOT, SGPT, Alkaline phosphates, Blood urea, Serum creatinine before and after treatment.

**Record of Adverse Effects**

The patients were observed for any side-effects throughout the study.

**Documentation**

The record will be submitted to the department after completion of study.

**Data analysis**

Statistical analysis was performed with Graph Pad Instat Demo version 3.00 for Windows (Graph Pad Software, San Diego Calif. USA). Final analysis was done after finishing the treatment of 45 cases (30 patients in test group and 15 patients in control group). Chi Square test and Student ‘t’ test (paired) was used. Significance is assessed at 5% level.

**Significant figures**

+ Suggestive significant (P.value: 0.05 < P< 0.10)

* Moderately significant (P.value: 0.01 < P ≤ 0.05)

** Strongly significant (P.value: P ≤0.01)
RESULTS AND DISCUSSION

Symptomatic relief in Test and Control groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Relieved</th>
<th>Partially relieved</th>
<th>Not relieved</th>
<th>P.val</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Group (N=30)</td>
<td>23</td>
<td>5</td>
<td>2</td>
<td>&lt;0.01**</td>
</tr>
<tr>
<td>Control Group (N=15)</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Therapeutic outcome

<table>
<thead>
<tr>
<th>Groups</th>
<th>Cured</th>
<th>Partially cured</th>
<th>Not cured</th>
<th>P.val</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Group (N=30)</td>
<td>23</td>
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<td>Control Group (N=15)</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Effect of Test drug on Safety parameters

<table>
<thead>
<tr>
<th>Safety parameters</th>
<th>Test group</th>
<th>Control group</th>
<th>P.val</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td>14.53±1.45</td>
<td>13.4±1.59</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>SGOT</td>
<td>20.63±0.90</td>
<td>22.5±2.158</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>SGPT</td>
<td>21±0.98</td>
<td>23.23±2.63</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>Alkaline phosphate</td>
<td>94.63±3.50</td>
<td>90.03±2.99</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>Blood urea</td>
<td>20.2±0.76</td>
<td>22.17±1.22</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>Serum creatinine</td>
<td>0.69±0.02</td>
<td>0.74±0.02</td>
<td>&gt;0.05</td>
</tr>
</tbody>
</table>

Symptomatic relief in every patient was assessed and categorised as ≥77.7% relief in all the symptoms present at first visit is considered as relieved, 18-76% relief in all the symptoms present at first visit is considered as partially relieved and ≤ 17% relief is considered not relieved. In the test group 23 (76.7%) patients were relieved, 5 (16.7%) patients were partially relieved and 2 (6.7%) were not relieved. The corresponding figures for control group were 5 (33.3%), 4(26.7%) and 6(40%). Totally 28(62.22%) were relieved, 9 (20%) were partially relieved and 8 (17.78%) were not relieved and P.value <0.01 for both the observations which is statistically significant. (Chi Square test).

Diagnosis and assessment of cure was done on the basis of speculum examination and cervical swab culture. On speculum examination hypertrophy, congestion or redness, naboths etc. should disappear considerably. The culture report which was positive in some patients should become negative; such an improvement is regarded as cured. The discharge should also be diminished noticeably. It was assessed and categorised as ≥83% relief in all the parameters present at first visit is considered cured, 18-82% relief in all the parameters present at first visit is considered partially cured and ≤ 17%relief in all the parameters present at first visit is considered not cured. In the test group 23 (76.7%) patients were cured, 5
(16.7%) were partially cured and 2 (6.7%) were not cured. The corresponding figures for control group were 5 (33.3%), 4 (26.7%) and 6(40%). Totally 28 (62.22%) were cured, 9 (20%) were partially cured and 8 (17.78%) were not cured and P.value <0.01 for both the observations which is statistically significant. (Chi Square test).

Paired Student’'t’’ test has been used to find the homogeneity of parameters. Here P.val > 0.05, it is considered non- significant, so the test drug do not posses any toxic effect on safety parameters.

**CONCLUSION**

On the basis of above observation it can be concluded that this drug is very effective in relieving the symptoms and signs of cervicitis. The test drug is cheaper, easily available and well tolerated by the patients without having any side effects. It can be inferred that the research drug has affected on the clinical parameters through its effect on cervicitis.

**REFERENCES**